



PATENT  
10/023,969  
Docket 084/002

CLAIM AMENDMENTS

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1. *(Previously amended)* A replication competent virus with a genome comprising adenovirus replication genes, at least one tissue or tumor specific transcriptional control element, and an encoding region from at least one heterologous gene that replaces a function of the adenovirus E1a gene.
  2. *(Original)* The virus of claim 1, which is a cytolytic virus.
  3. *(Original)* The virus of claim 1, wherein the heterologous gene is selected from Y-box transactivators, the immediate early genes of cytomegalovirus (CMV), and the oncogenes of human papillomavirus (HPV).
  4. *(Currently Amended)* ~~The virus of claim 3, wherein the heterologous gene is YB-1~~  
A replication competent virus with a genome comprising adenovirus replication genes, at least one tissue or tumor specific transcriptional control element, and an encoding region for a Y-box transactivator that replaces a function of the adenovirus E1a gene.
  5. *(Original — Withdrawn)* The virus of claim 3, wherein the heterologous gene is CMV IE1 or CMV IE2.
  6. *(Original — Withdrawn)* The virus of claim 3, wherein the heterologous gene is HPV E6, or HPV E7.
  7. *(Previously amended)* The virus of claim 1, wherein the heterologous gene is under control of the tissue or tumor specific transcriptional control element.
  8. *(Previously amended — Withdrawn)* The virus of claim 1, wherein the transcriptional control element is a tissue specific promoter, which is a promoter for albumin,  $\alpha$ -fetoprotein, prostate-specific antigen (PSA), mitochondrial creatine kinase (MCK), myelin basic protein (MB), glial fibrillary acidic protein (GFAP), or neuron-specific enolase (NSE).
  9. *(Previously amended)* The virus of claim 1, wherein the transcriptional control element is a tumor specific promoter, which is a promoter for telomerase reverse transcriptase (TERT), carcinoembryonic antigen (CEA), hypoxia-responsive element (HRE), *Grp78*, L-plastin, or hexokinase II.

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10. *(Original)* The virus of claim 9, wherein the promoter comprises at least 25 consecutive nucleotides in SEQ. ID NO:1.
  11. *(Original)* A host cell containing the virus of claim 1.
  12. *(Original — Withdrawn)* A method for selecting a virus according to claim 1, comprising transducing a host cell with a virus lacking an adenovirus gene required for replication or assembly, but comprising a heterologous gene; and determining whether replicated virus is produced by the cell
  13. *(Previously amended — Withdrawn)* A method for killing a cancer cell, comprising contacting the cell with the virus of claim 1.
  14. *(Original — Withdrawn)* A method for killing a cell expressing telomerase reverse transcriptase (TERT), comprising contacting the cell with the virus of claim 10.
  15. *(Original — Withdrawn)* The method of claim 13, wherein the cancer is lung cancer, pancreatic cancer, medulloblastoma, cervical carcinoma, fibrosarcoma, or osteosarcoma.
  16. *(Previously added)* A replication conditional virus with a genome comprising adenovirus replication genes, at least one tissue or tumor specific transcriptional control element, and at least one heterologous gene that replaces a function of the adenovirus E1a gene,  
wherein the heterologous gene is selected from Y-box transactivators, the immediate early genes of cytomegalovirus (CMV), and the oncogenes of human papillomavirus (HPV).
  17. *(Previously added)* A replication conditional virus with a genome comprising adenovirus replication genes, at least one tissue or tumor specific transcriptional control element, and at least one heterologous gene that replaces a function of the adenovirus E1a gene,  
wherein the heterologous gene is YB-1.
  18. *(Previously added — Withdrawn)* The virus of claim 16, wherein the heterologous gene is CMV IE1 or CMV IE2.
  19. *(Previously added — Withdrawn)* The virus of claim 16, wherein the heterologous gene is HPV E6, or HPV E7.
  20. *(Previously added)* The virus of claim 16, wherein the heterologous gene is under control of the tissue or tumor specific transcriptional control element.

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21. *(Previously added — Withdrawn)* The virus of claim 16, wherein the transcriptional control element is a tissue specific promoter, which is a promoter for albumin,  $\alpha$ -fetoprotein, prostate-specific antigen (PSA), mitochondrial creatine kinase (MCK), myelin basic protein (MB), glial fibrillary acidic protein (GFAP), or neuron-specific enolase (NSE).
22. *(Previously added)* The virus of claim 16, wherein the transcriptional control element is a tumor specific promoter, which is a promoter for telomerase reverse transcriptase (TERT), carcinoembryonic antigen (CEA), hypoxia-responsive element (HRE), *Grp78*, L-plastin, or hexokinase II.
23. *(Previously added)* The virus of claim 22, wherein the promoter comprises at least 25 consecutive nucleotides in SEQ. ID NO:1.
24. *(Previously added — Withdrawn)* A method for killing a cancer cell, comprising contacting the cell with the virus of claim 23.
25. *(Previously added — Withdrawn)* A method for killing a cell expressing telomerase reverse transcriptase (TERT), comprising contacting the cell with the virus of claim 10.
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